Tamifume 365 & Nemasol Fumigation

INFO SHEET

Tamifume® 365
Eastman Chemical Australia PTY LTD

Nemasol
Eastman Chemical Australia PTY LTD

Both Tamifume and Nemasol are non-flammable liquid fumigant – suitable for pre-plant treatment for control of certain soil borne pests such as germinating weed seeds, nematodes, fungal diseases and symphylids.

For agricultural use

Tamifume is then formulated as potassium (N-methyldithiocarbamate, which is highly soluble in water and rapidly converts to methylisothiocyanate (MITC) upon contacting moist soil. MITC is the active, highly volatile & poisonous gas that fumigates soil borne pests.)

For agricultural use

Nemasol is then formulated as sodium (N-methyldithiocarbamate, which is highly soluble in water and rapidly converts to methylisothiocyanate (MITC) upon contacting moist soil. MITC is the active, highly volatile & poisonous gas that fumigates soil borne pests.)

	Tamifume 365	Nemasol
Active ingredient	365g/L Metham present as the Potassium salt	423g/L Metham present as sodium salt
Benefit	• Potassium salt (K+) • Better efficacy • Better settlement of plants • Better yields • Improved mineral profile for Saline and Sodic soils	
Molecular Weight	145.23 g.mol-1	129.19 g.mol-1
SODIUM added/1000L of product		9.0 g/m²
POTASSIUM added/1000L of product	13.7 g/m²	
NITROGEN added/1000L of product	4.9 g/m²	5.5 g/m²
SULFUR added/1000L of product	22.5 g/m²	25.3 g/m²
Rates: Field Application to Beds or Rows (Rotary Tiller)	290-580L per 400-700L water/ha OR 290-580L/ha (undiluted)	250-500L per 400-700L water/ha
Weeds, Pests and Diseases controlled	Germinating Weed Seeds including Winter Grass, Prince of Wales Feather, Fat Hen, Nematodes, Symphylids (Not Tas.) (Garden Centipede), Fungus Diseases including Rhizoctonia, Pythium, Fusarium, Phytophthora, Verticillium, Sclerotinia and Club Root of Crucifers	

For more information, contact your local 7 Worlds Ag representative

Preparation

Regardless of the method of application, certain soil conditions must be met to insure Tamifume effectiveness. Pests can survive after Tamifume application in poorly prepared soils. A failure in preparation means a failure in fumigation.
Prepare the field for planting before fumigation. Preparing soil and application in optimum soil conditions will provide the best results.

The movement, effectiveness and risk of MITC loss from the soil is directly affected by the following factors:

SOIL TEMP.	Between 10°C – 32°C at time of application. Optimum performance is between 15°C – 25°C at 5cm to 8cm below the surface. At higher temperatures (unless incorporated or moved by water) over 50% of the product could be volatilised and lost within minutes.
SOIL MOISTURE	Soil moisture is necessary for conversion of Tamifume to MITC. Too much moisture retards conversion to and impedes movement of MITC. Too little moisture allows fumigant to escape. Approximately 60% of field capacity (soil retains shape) throughout soil profile before application. Approximately one week before application, the area to be treated should be irrigated – ensuring moisture penetration evenly to the required treatment depth. Soil must be moist for at least 5 days before application. Moisture of approximately 60% field capacity through the treatment zone is required prior to treatment to zone is required prior to treatment to ensure: 1. Weed seeds are softened or preferably germinating 2. Soil borne diseases are active. 3. The conversion of Tamifume to MITC 4. Even distribution of Tamifume through the soil.
SOIL AERATION/ STRUCTURE	Aeration is necessary for conversion of Tamifume to MITC and effective fumigant movement through the soil profile. Important to have a well aerated, fine tilth soil structure, free from large clods, plant residue & trash. Fumigants do not move uniformly through compacted or poorly prepared soils
SOIL TYPE/ ORGANIC MATTER	Heavy clay soils, or soils high in fresh or decaying plant material and manure breaks down MITC which can reduce performance. Use higher rates and good sealing in these soil conditions. To allow an even incorporation of Tamifume, high volumes of crop residue or trash must not be present at the time of fumigation. If so, there can be two consequences: 1. Channelling or an uneven distribution of the Tamifume fumigant through the soil. 2. Organic material.
SOIL SEALING	All soil types need to be well sealed immediately after Tamifume application. Make a temporary seal by rolling and irrigation (min. 5mm or sufficient for a surface seal) to minimise the amount of fumigant loss to the atmosphere. Repeat irrigation after 2 – 3 days for light soils or soils which crack or dry out quickly. More effective seal may be achieved by use of plastic sheeting.
WHEN TO USE MAXIMUM AND MINIMUM RATES	Generally, a light sandy soil requires a lower application rate than a heavier mineral soil. In addition, if the pest is in the upper portion of the soil profile (annual weeds), a lower application rate is generally required than if the pest is deeper in the soil profile and deeper penetration is desired (perennial weed seed and nematodes). When pests/disease are in high numbers or the area to be treated has a history of high pest/ disease pressure, the higher rates should be used when application rates are given in ranges.
TREATMENT DEPTHS	For control of weeds and fungi, which cause seed or seedling diseases, treatment of only the top 50 – 100mm of soil may be required. Treatment depths greater than 100mm may be required for control of nematodes.

Always refer to the product label before use.